AMENDMENT OF SOLICITATI	ON/MODIFICATI	ON OF CONTRA	CT	1. Contract I		Page 1 Of 7
2. Amendment/Modification No.	3. Effective Date	4. Requisition/Purchas	se Req			(If applicable)
₽00006	2004SEP13	SEE SCHEDU	JLE			
6. Issued By	Code W56HZV	7. Administered By (If		than Item 6)		Code N62879
TACOM WARREN		OFFICE OF NAVAI				
AMSTA-LC-AL-P SUE STONER (586)574-8350		BOSTON REGIONAL 495 SUMMER STRE				
WARREN, MICHIGAN 48397-5000		BOSTON, MA 022				
HTTP://CONTRACTING.TACOM.ARMY.MIL						
EMAIL: STONERS@TACOM.ARMY.MIL		SCD	C	PAS NONE	ADP	PT N62879
8. Name And Address Of Contractor (No., Stre	et, City, County, State and		П		nt Of Solicitation	
ROCHESTER INSTITUTE OF TECHNOLOGY			ш			
7 LOMB MEMORIAL DR			-	9B. Dated (See	Item 11)	
ROCHESTER, NY. 14623-5603				Dated (See	11011111	
			Х	10A. Modificat	ion Of Contrac	t/Order No.
				DAAE07-03-C-	0010	
TYPE BUSINESS: Other Nonprofit			-	10B. Dated (Se	e Item 13)	
Code OSWS3 Facility Code				2003MAY30		
11. T	HIS ITEM ONLY APPLI	ES TO AMENDMENTS	OF SO	DLICITATION	S	
The above numbered solicitation is amend	led as set forth in item 14.	The hour and date spec	ified fo	or receipt of Off	fers	
is extended, is not extended.						
Offers must acknowledge receipt of this ame						
(a) By completing items 8 and 15, and return offer submitted; or (c) By separate letter or						
ACKNOWLEDGMENT TO BE RECEIVED						
SPECIFIED MAY RESULT IN REJECTIO change may be made by telegram or letter, p						
opening hour and date specified.						
12. Accounting And Appropriation Data (If red SEE SECTION G	quired)					
13. THIS KIND MOD CODE: G	ITEM ONLY APPLIES T	O MODIFICATIONS O act/Order No. As Describ			DERS	
A. This Change Order is Issued Pursual The Contract/Order No. In Item 10.	nt To:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		anges Set Forth	In Item 14 Are Made In
B. The Above Numbered Contract/Orde Set Forth In Item 14, Pursuant To T	er Is Modified To Reflect		iges (su	ich as changes i	n paying office,	appropriation data, etc.)
X C. This Supplemental Agreement Is Ent	·		reemen	t of the Part	ies	
D. Other (Specify type of modification a	and authority)					
E. IMPORTANT: Contractor is not,	X is required to sign	this document and retu	rn	0	copies to the Issu	ning Office.
14. Description Of Amendment/Modification (Organized by UCF section	headings, including solid	citation	/contract subje	ct matter where	feasible.)
SEE SECOND PAGE FOR DESCRIPTION						
Except as provided herein, all terms and condi	tions of the document refe	ranced in item 9A or 10A	ac ho	retofore change	ad romains unc	hanged and in full force
and effect.		reneed in item 7A or 10A	i, as ne	retorore change	cu, remains unc	nanged and in fun force
15A. Name And Title Of Signer (Type or print)		16A. Name And MICHAEL T. F	INNELI			r print)
15B. Contractor/Offeror	15C. Date Signed				. 1 0301	16C. Date Signed
(Signature of person authorized to sign)	_	By(Signs	iture e	/SIGNED/ f Contracting C	Officer)	2004SEP13
NSN 7540-01-152-8070		30-105-02	wart O			ORM 30 (REV. 10-83)

Reference No. of Document Being Continued

PIIN/SIIN DAAE07-03-C-0010

MOD/AMD P00006

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Name of Offeror or Contractor: ROCHESTER INSTITUTE OF TECHNOLOGY

SECTION A - SUPPLEMENTAL INFORMATION

- 1. The purpose of Mod P00006 is to add a Phase 3 requirement for prototyping and testing of the Turret Battery Power Back-up System. As a result the contract is modified as follows:
 - a. The completion date on Phase 3 CLIN 0001AC is extended from 31 Oct 2004 to 30 December 2004 to allow for the completion of the new prototyping effort.
 - a. CLIN 0001AD is added to the contract in the amount of \$6,200 and CLIN 0001AE is added in the amount of \$14,867 for the prototyping and testing. The total amount of the prototyping and testing is \$21,067 the amount of CLINS 0001AD and 0001AE combined.
 - b. New paragraph C.2.4 adds the prototype and testing requirement to the contract.
 - c. Section G is revised to add the appropriations data for CLIN 0001AD.
- 2. As a result of this action the total contract amount is increased by \$21,067 from \$137,160 to \$158,227. All other terms and conditions of this contract are unchanged as a result of this action.

*** END OF NARRATIVE A 005 ***

Reference No. of Document Being Continued PIIN/SIIN DAAE07-03-C-0010

MOD/AMD P00006

Page 3 **of** 7

Name of Offeror or Contractor: ROCHESTER INSTITUTE OF TECHNOLOGY

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS				
0001AD	SERVICES LINE ITEM				\$6,200.00
	NOUN: BATTERY BACK-UP SYSTEM				
	PRON: T142T5824K PRON AMD: 01 ACRN: AB CUSTOMER ORDER NO: M9545004MPR4BY3				
	Inspection and Acceptance				
	INSPECTION: Destination ACCEPTANCE: Destination				
	Deliveries or Performance				
	DLVR SCH PERF COMPL REL CD QUANTITY DATE				
	001 0 30-DEC-2004				
	\$ 6,200.00				
	Q 0,200.00				

Reference No. of Document Being Continued PIIN/SIIN DAAE07-03-C-0010

MOD/AMD P00006

Page 4 of 7

Name of Offeror or Contractor: ROCHESTER INSTITUTE OF TECHNOLOGY

Name of Offeror or Contractor: ROCHESTER INSTITUTE OF TECHNOLOGY						
ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	
0001AE	SERVICES LINE ITEM NOUN: BATTERY BACK-UP PRON: T132T3214K PRON AMD: 02 ACRN: AA				\$ 14,867.00	
	CUSTOMER ORDER NO: M9545003MPR3AG9 Inspection and Acceptance INSPECTION: Destination ACCEPTANCE: Destination					
	Deliveries or Performance					

Reference No. of Document Being Continued

PIIN/SIIN DAAE07-03-C-0010

MOD/AMD P00006

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Name of Offeror or Contractor: ROCHESTER INSTITUTE OF TECHNOLOGY

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

- C.1.1 The Light Armored Vehicle 25mm (LAV-25) turret has an electronic system that draws power through the turret slip ring and into the Power Distribution Assembly (PDA). The PDA distributes power to all of the electronic equipment contained within the turret which includes but is not limited to: Gun Control Unit (GCU), the Control Display Assembly (CDA), the M242 25mm Main Gun, the M240 7.62mm Coaxial Mounted Machine Gun, the turret lighting systems, the nuclear/biological/chemical system, the hydraulic turret drive, the Gunners Thermal Imaging Sight, the Commanders Day/Night Sight, the communications equipment, the Precision Lightweight GPS Receiver (PLGR), and the Data Automated Communications Terminal (DACT). The LAV-25 will be receiving a new thermal sight with greater power demands. Preliminary testing indicates that when all of the turret electronics are powered up (except for the turret drive) that the turret has sufficient power; however when the turret drive is engaged the thermal sight and other equipment will shut down temporarily.
- C.1.2 The hydraulic turret drive currently utilized in the LAV-25 possesses a high audio signature (approximately 110 Decibels), produces an excessive amount of heat, induces electrical jitter in the turret drift stabilization system, and is becoming obsolete.
- C.1.3 The Family of Light Armored Vehicles (FOLAV) is undergoing a Service Life Extension Program (SLEP). Particular to the LAV-25, the PDA, GCU, and CDA are being modified to increase the Mean-Time-Between-Failures (MTBF) of these items. However, should the Government require replacements for these items they would not be available since the Original Equipment Manufacturer (OEM) no longer produces these items.

C.2.0 DIRECTION

C.2.1 Phase 1.

- a. Conduct an electrical power study of the LAV-25 turret, including all of the electronic equipment contained within the turret as well as the Improved Thermal Sight System that is under development. This study will use steady state load data provided by PM-LAV Mesurements will be made on an LAV located at R.I.T. to evoluate the transient characheristics of the turret loads.
 - b. Conduct a market survey to identify candidate replacement turnet drive systems.
- c. Evaluate the turret control boxes (PDA, GCU, and CDA), with SLEP upgrades applied, as possible candidates for reverse engineering.

C.2.2 Phase 2.

- a. Conduct a trade study to determine which steps should be taken to improve the power management within the LAV-25
 - b. Conduct a trade study to determine the best value replacement turret drive.
- c. Conduct a trade study to determine the best value upgrade/replacements for the turret control boxes (PDA, GCU, and CDA).
- C.2.3 Phase 3. The contractor will generate detailed designs for the PDA, GCU and CDA replacements.

C.2.4 Phase 3 Guidance

- a. Develop the Turret Battery Power Back-up System as described in the Phase II report submitted by RIT. This includes the engineering drawings, installation instructions, and two (2) sets of prototype hardware. The Contractor shall also supply the findings of all tests conducted on the prototype, including compliance to MIL-STD-1275.
- b. One (1) prototype will be installed by RIT with PMO LAV personnel present to validate and verify the installation instructions. The second prototype will be supplied to PMO LAV for independent testing and evaluation.

C3.0 DELIVERABLES

- a. LAV-25 Turret Electrical Power Study due 120 days after contract award.
- b. Turret Drive Market Survey due 90 days after contract award.
- c. PDA, GCU, and CDA Engineering Study (replacement/upgrade/reverse engineer) due 180 days after contract award.
- d. Trade Study for Power Management Upgrades due 180 days after contract award.
- e. Trade Study for Replacement Turret Drive System due 120 after contract award.
- f. Trade Study for PDA, GCU, and CDA (replacement/upgrade/reverse engineer) due 210 days after contract award.
- g. Preliminary design review package (design options, cost estimates). Required delivery date to be determined.
- h. Detailed design summary (drawings, schematics, cost analysis). Required delivery date to be determined.
- <u>i.</u> Phase 3 prototypes, drawings, installation instructions, and test results.

C.4.0 MEETINGS

- a. Bi-Weekly teleconferences/video teleconferences to discuss all aspects of this Work Directive.
- b. Program Status Review (PSR) following the completion of Phase 1 Activities at RIT.
- c. $\,$ PSR following the completion of Phase 2 Activities at RIT.
- d. PSR following the completion of Phase 3 Activities at RIT.

CONTINUATION SHEET	Reference No. of Document Be	Page 6 of 7	
CONTINUATION SHEET	PHN/SHN DAAE07-03-C-0010	MOD/AMD P00006	
Name of Offeror or Contractor: ROCHESTER	INSTITUTE OF TECHNOLOGY		

*** END OF NARRATIVE C 001 ***

CONTINUATION SHEET			Reference No. of Document Being Continued					Page 7 of 7			
CONTINUATION SHEET					PIIN/SIIN DAAE07-03-C-0010			.0 MOD/AMD P0	MOD/AMD P00006		
Name	of Offer	or or Contract	or: ROCH	HESTER II	NSTITUTE OF	TECHNOLOGY				•	
SECTION	G - CO1	NTRACT ADMINIS	STRATION	DATA							
	PRON/										
LINE	AMS CD/	/		OBLG ST	AT/			INCREASE/DECREASE		CUMULATIVE	
<u>ITEM</u>	MIPR	_	<u>ACRN</u>	JOB ORD	NO	PRIOR AMOUNT		AMOUNT		AMOUNT	
0001AD	T142T58	324K	AB	2	\$	0.00	\$	6,200.00	\$	6,200.00	
	M954500	04MPR4BY3									
0001AE	T132T32	214K	AA	2	\$	0.00	\$	14,867.00	\$	14,867.00	
	M954500	3MPR3AG9									
						NET CHANGE	\$	21,067.00			
SERVICE		NET CHANGE						ACCOUNTING		INCREASE/DECREASE	
NAME	_	BY ACRN	ACCO1	UNTING C	LASSIFICATI	ON		STATION		AMOUNT	
Marine	Corps	AA	17	341319М7	KE250008020	00674432DC1555B00	003N	MPR3AG9	\$	14,867.00	
Marine	Corps	AB	17	451319M7	KE250678540	00674432DC1555B00	004N	MPR4BY3	\$	6,200.00	
								NET CHANG	E \$	21,067.00	

PRIOR AMOUNT

NET CHANGE FOR AWARD: \$ 137,160.00

OF AWARD

 INCREASE/DECREASE
 CUMULATIVE

 AMOUNT
 OBLIG AMT

 21,067.00
 \$ 158,227

OBLIG AMT

158,227.00

INCREASE/DECREASE